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| **Learning Planner** |
| **Subject** | *General science* | **Week** | *22* | **Duration** | *180 min* | **Form** |  *SHS 1* |
| **Strand** | **RELATIONSHIPS WITH THE ENVIRONMENT** | **Sub-Strand** | Technology in our Local Industries |
| **Content Standard** | Demonstrate understanding of the process of local soap making and design methods of producing soaps for different purposes for income generation. |
| **Learning Outcome(s)** | Produce local soap in the community. |
| **Learning****Indicator(s)** | Design Experiment to produce different types of soap |
| **Essential Question(s)**  | What process is involve in soap making?What materials are needed in saponification?What materials are needed to demonstrate to learners technology in our local industries? |
| **Pedagogical Strategies** | * Collaborative learning
* Talk-for-learning/ brainstorm
* Demonstration
* Field trip
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| **Teaching & Learning Resources** | * Internet sources (https://www.youtube.com/watch?v=1MtzyxQiqKo, https://www.youtube.com/watch?v=Kc7duzDEa6Y)
* Potash (ash from burnt stalks, cocoa pods, plantain peels etc), vegetable oil, fire source, saucepan, beaker, weighing scale, common salt, water, filter paper.
* Camera and voice recording device.
* Journals
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| **Key Notes on Differentiation** |
| 1. Learning task
* Name four materials needed in saponification
* Explain the role of at least four materials needed in saponification
* Describe the process of making local soap using hands-on activity, etc.
1. Pedagogical Exemplars
* Organize a workshop where participants can learn about the soap making process step-by-step
* Put learners into mixed ability and mixed-sex groups (where applicable), Let the learners conduct an experiment to prepare a local soap. They should vary the materials (reactants) to see the outcomes
* Learners should create educational videos demonstrating the soap making process from start to finish, etc.
1. Key Assessment
* Level 1: Name four materials needed in saponification.
* Level 2: List and explain the role of four materials needed in saponification.
* Level 3: Describe the process of making local soap.

Level 3: Explain why some local soaps different from each other?, etc. |
| **Keywords** | Types, molds, accurate, ingredients, etc. |
| **Lesson 1****Experiment to Produce Different Types of Soap** |
| **Main Lesson drawing on Concepts, Skills and Competencies to reinforce as in the Subject Teacher Manual** |
| ***Teacher Activity***  | ***Learner Activity*** |
| **Starter *Activity (10 minutes)*** ***Ask learners to sing the National Anthem*** |
| ***Introductory Activity (15minutes)*** *Put learners into missed-gender and mixed ability groups.**Give a general overview of Saponification.****Activity 1 (40 minutes)***1. ***Show video of soap making (Saponification) to learners in their mixed gender and mixed ability groups.***
2. ***Ask learners to note down step-by-step the process of soap making from the video.***

***Activity 2 (40 minutes)***1. *Ask learners to describe by discussing saponification process in their mixed groups*
2. *Ask learners to present their group discussions to the class*
 | ***Introductory Activity (15minutes)****Seat in your mixed-gender and mixed-ability groups.**Note down saponification.****Activity 1***1. *Watch video of soap maing.*
2. *Note down the step involve in soap making*

***Activity 2*** *Describe by discussing saponification process in your mixed groups*1. Present your findings to the class
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| **Assessment DoK aligned to the Curriculum and Subject Teacher Manual** |
| * Level 1: Name four materials needed in saponification.
* Level 2: List and explain the role of four materials needed in saponification.
* Level 3: Describe the process of making local soap.
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| **Lesson Closure** ***In completing this part, refer to the Essential Questions to check that learning has taken place.*** |
| ***Activity (15 minutes)*** *Using Pass-that-question, ask learners to write any question on the lesson**Summarize the lesson highlighting the salient points.* |
| **Reflection & Remarks** |
| *Reflection**Remarks* |
| **Lesson 2****Experiment to Produce Different Types of Soap** |
| **Main Lesson drawing on Concepts, Skills and Competencies to reinforce as in the Subject Teacher Manual** |
| ***Teacher Activity***  | ***Learner Activity*** |
| **Starter *Activity (10 minutes)*** *Ask learners to reciete a poem*  |
| ***Introductory activity (25 minutes)****Put learners into mixed-gender and mixed ability groups.**Ask learners to list the mateials needed for soap making in their mixed groups****Activity 1 (120 minutes)****Give each group materials to demonstrate saponification from starting to finish.**Hint:Vary the material for each group in order to produce different soaps* | ***Introductory activity*** *Seat in your mixed groups**List the materials needed for soap making****Activity 1(30 minutes)*** *Demonstrate saponification from starting to finish.* |
| **Assessment DoK aligned to the Curriculum and Subject Teacher Manual** |
|  Level 3: Describe the process of making local soap |
| **Lesson Closure** ***In completing this part, refer to the Essential Questions to check that learning has taken place.***  |
| ***Activity (15 minutes)*** *Using Pass-that-question, ask learners to write any question on the lesson**Access the quality of the soap from each group amd award marks* |
| **Reflection & Remarks** |
| *Reflection**Remarks* |